

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)								DATE February 2002	
BUDGET ACTIVITY 04 - Demonstration and Validation				PE NUMBER AND TITLE 0603432F Polar MILSATCOM (Space)					
COST (\$ in Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	29,229	18,539	19,554	80,683	220,973	200,000	125,000	600,000	1,515,051
4052 Polar Satellite Communications	29,229	18,539	9,577	5,717	981	0	0	0	285,116
A005 National Strategic SATCOM System (NSSS)	0	0	9,977	74,966	219,992	200,000	125,000	600,000	1,229,935
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0

Note: New start effort: 0603432F, Polar MILSATCOM (Space), Project A005, National Strategic SATCOM System (NSSS), in order to acquire the follow-on, next generation, Polar MILSATCOM system (which will also be the follow-on, next generation Advanced EHF MILSATCOM system).

(U) **A. Mission Description**

This program element will acquire satellite communications (SATCOM) systems to assure national and strategic warfighters maintain command and control during all levels of conflict (including nuclear) in both mid latitude and polar regions.

Polar Satellite Communications is funding scaled-down Milstar packages integrated into 3 classified host satellites as an expedited, interim solution to requirements for assured connectivity in the north polar region.

NSSS will provide next generation nuclear protected SATCOM as the follow-on to both the interim Polar SATCOM program and the Advanced EHF program (that follows Milstar).

(U) **B. Budget Activity Justification**

The Polar MILSATCOM program is in Budget Activity 4, Demonstration and Validation, based on the 30 Mar 95 USD(A&T) memorandum to pursue the interim hosted solution (Interim Polar). The NSSS project is being defined as the next generation strategic MILSATCOM system.

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE

February 2002

BUDGET ACTIVITY

PE NUMBER AND TITLE

04 - Demonstration and Validation**0603432F Polar MILSATCOM (Space)**(U) C. Program Change Summary (\$ in Thousands)

	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Total Cost</u>
(U) Previous President's Budget	25,829	18,724	9,588	281,919
(U) Appropriated Value	26,068	18,724		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions	-182	-185		
b. Small Business Innovative Research				
c. Omnibus or Other Above Threshold Reprogram				
d. Below Threshold Reprogram	3,400			
e. Rescissions	-57			
(U) Adjustments to Budget Years Since FY 2002 PBR			9,966	
(U) Current Budget Submit/FY 2003 PBR	29,229	18,539	19,554	1,515,051
(U) <u>Significant Program Changes:</u>				
(U) FY01 Polar Satellite Comm: Increased funding (\$3,400) for program cost growth at classified host program office.				
(U) FY03-07: New project added - NSSS (\$9,977 in FY03, \$629,935 total across FYDP))				

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BUDGET ACTIVITY 04 - Demonstration and Validation				PE NUMBER AND TITLE 0603432F Polar MILSATCOM (Space)				PROJECT 4052																																									
COST (\$ in Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost																																								
4052 Polar Satellite Communications	29,229	18,539	9,577	5,717	981	0	0	0	285,116																																								
<p>(U) <u>A. Mission Description</u> Polar MILSATCOM is acquiring protected communications services as an adjunct to Milstar for warfighters operating in the northern polar region. The JROC approved 1995 ORD contains a subset of requirements that required expedited solution. The current expedited program, sometimes called Interim Polar, integrates small Milstar-compatible packages on 3 classified host satellites to provide limited requirements satisfaction while a long term solution is pursued. The first hosted package was launched in Nov 97, the last two will be available in FY03 and FY06. Acquisition of the long term solution will be part of the National and Strategic SATCOM System (NSSS) project just added to this PE.</p> <p>(U) <u>FY 2001 (\$ in Thousands)</u> (U) \$29,229 Continued payload development and integration development with host vehicle for Interim Polar packages 2 and 3. (Through the classified host contract) (U) \$29,229 Total</p> <p>(U) <u>FY 2002 (\$ in Thousands)</u> (U) \$18,539 Assemble payload and integrate with host vehicle for Interim Polar packages 2 and 3. (Through the classified host contract) (U) \$18,539 Total</p> <p>(U) <u>FY 2003 (\$ in Thousands)</u> (U) \$9,577 Assemble payload and integrate with host vehicle for Interim Polar packages 2 and 3. (Through the classified host contract) (U) \$9,577 Total</p> <p>(U) <u>B. Project Change Summary</u></p> <p>(U) <u>C. Other Program Funding Summary (\$ in Thousands)</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;"><u>FY 2001</u></th> <th style="text-align: center;"><u>FY 2002</u></th> <th style="text-align: center;"><u>FY 2003</u></th> <th style="text-align: center;"><u>FY 2004</u></th> <th style="text-align: center;"><u>FY 2005</u></th> <th style="text-align: center;"><u>FY 2006</u></th> <th style="text-align: center;"><u>FY 2007</u></th> <th style="text-align: center;"><u>Cost to</u></th> <th style="text-align: center;"><u>Total Cost</u></th> </tr> <tr> <th></th> <th style="text-align: center;"><u>Actual</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Complete</u></th> <th></th> </tr> </thead> <tbody> <tr> <td>(U) None.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="10">The Navy has used its own PE(s) to modify control systems and terminals to work with Interim Polar.</td> </tr> </tbody> </table>											<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>Cost to</u>	<u>Total Cost</u>		<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>		(U) None.										The Navy has used its own PE(s) to modify control systems and terminals to work with Interim Polar.									
	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>Cost to</u>	<u>Total Cost</u>																																								
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The Navy has used its own PE(s) to modify control systems and terminals to work with Interim Polar.																																																	
<div style="display: flex; justify-content: space-between;"> Project 4052 Page 3 of 9 Pages Exhibit R-2A (PE 0603432F) </div>																																																	

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BUDGET ACTIVITY 04 - Demonstration and Validation	PE NUMBER AND TITLE 0603432F Polar MILSATCOM (Space)	
		PROJECT 4052

(U) **D. Acquisition Strategy**
 The Air Force provides funds to the classified host program office to modify the host satellite system contract to include the Polar EHF package. The host program office has total acquisition responsibility for Interim Polar.

(U) **E. Schedule Profile**

	<u>FY 2001</u>				<u>FY 2002</u>				<u>FY 2003</u>			
	1	2	3	4	1	2	3	4	1	2	3	4
(U) Acquisition activities & dates are classified												
* Completed Event												
X Planned Event												

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2002				
BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT			
04 - Demonstration and Validation				0603432F Polar MILSATCOM (Space)				4052			
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>											
						<u>FY 2001</u>		<u>FY 2002</u>		<u>FY 2003</u>	
(U)	Packages 2 & 3 Payload/Integration Development					29,229		18,539		9,577	
(U)	Total					29,229		18,539		9,577	
(U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>											
(U) <u>Performing Organizations:</u>											
	<u>Contractor or</u>	<u>Contract</u>									
	<u>Government</u>	<u>Method/Type</u>	<u>Award or</u>	<u>Performing</u>	<u>Project</u>						
	<u>Performing</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Activity</u>	<u>Office</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	
	<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>	
	<u>Product Development Organizations</u>									<u>Total</u>	
	Classified	Classified	June 95	285,301	285,301	221,073	29,229	18,539	9,577	6,698	285,116
	<u>Support and Management Organizations</u>										
	N/A										
	<u>Test and Evaluation Organizations</u>										
	N/A										
(U) <u>Government Furnished Property:</u>											
		<u>Contract</u>									
		<u>Method/Type</u>	<u>Award or</u>								
	<u>Item</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Delivery</u>		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	
	<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>		<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>	
	<u>Product Development Property</u>									<u>Total</u>	
	N/A										
	<u>Support and Management Property</u>										
	N/A										
	<u>Test and Evaluation Property</u>										
	N/A										
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)					DATE February 2002		
BUDGET ACTIVITY		PE NUMBER AND TITLE				PROJECT	
04 - Demonstration and Validation		0603432F Polar MILSATCOM (Space)				4052	
		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Subtotals</u>		<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>	<u>Program</u>
Subtotal Product Development		221,073	29,229	18,539	9,577	6,698	285,116
Subtotal Support and Management							
Subtotal Test and Evaluation							
Total Project		221,073	29,229	18,539	9,577	6,698	285,116

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)								DATE February 2002	
BUDGET ACTIVITY 04 - Demonstration and Validation				PE NUMBER AND TITLE 0603432F Polar MILSATCOM (Space)				PROJECT A005	
COST (\$ in Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
A005 National Strategic SATCOM System (NSSS)	0	0	9,977	74,966	219,992	200,000	125,000	600,000	1,229,935
<p>Note: New start effort: 0603234F, Polar MILSATCOM (Space), Project A005, National Strategic SATCOM System (NSSS), in order to acquire the follow-on, next generation, Polar MILSATCOM system (which will also be the follow-on, next generation, Advanced EHF MILSATCOM system</p> <p>(U) <u>A. Mission Description</u> The National and Strategic SATCOM System (NSSS) is a new start program to follow the Polar and Advanced EHF programs. NSSS will provide assured next generation command control for national command authorities and strategic warfighters in all levels of conflict (including nuclear) in both mid latitude and polar regions. NSSS will be nuclear protected. Protected SATCOM capabilities for tactical users (currently provided by the Milstar and AEHF programs) will be perpetuated on Wideband MILSATCOM systems without nuclear hardening, not on the nuclear hardened NSSS.</p> <p>(U) <u>FY 2001 (\$ in Thousands)</u> (U) \$0 No Activity (U) \$0 Total</p> <p>(U) <u>FY 2002 (\$ in Thousands)</u> (U) \$0 No Activity (U) \$0 Total</p> <p>(U) <u>FY 2003 (\$ in Thousands)</u> (U) \$9,977 Concept Exploration Activities (U) \$9,977 Total</p> <p>(U) <u>B. Project Change Summary</u></p>									
<div style="display: flex; justify-content: space-between; padding: 10px;"> Project A005 Page 7 of 9 Pages Exhibit R-2A (PE 0603432F) </div>									

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BUDGET ACTIVITY 04 - Demonstration and Validation				PE NUMBER AND TITLE 0603432F Polar MILSATCOM (Space)			PROJECT A005	
(U) C. Other Program Funding Summary (\$ in Thousands)								
	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>Cost to</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>
(U) AF RDT&E								
(U) Other APPN None at this time. After the Transformational Comm Architecture is finalized, impacts to terminal (e.g., PE 0303601F) and control (e.g., C2 System Consolidated -PE 0603854F) programs will be definitized. Services will acquire their own terminals via Service PEs.								
(U) D. Acquisition Strategy Developing strategy during the CY 2002 Transformational Communications Architecture study. Anticipate a competitive development along the lines of Milstar and Advanced EHF programs.								
(U) E. Schedule Profile								
	<u>FY 2001</u>			<u>FY 2002</u>			<u>FY 2003</u>	
	1	2 3	4	1	2 3	4	1	2 3 4
(U) Transformational Comm Architecture study					X X			
(U) Concept Exploration Contract Award							X	

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)										DATE February 2002	
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT	
04 - Demonstration and Validation					0603432F Polar MILSATCOM (Space)					A005	
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>											
					<u>FY 2001</u>		<u>FY 2002</u>		<u>FY 2003</u>		
(U) Begin Concept Exploration					0		0		9,977		
(U) Total					0		0		9,977		
(U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>											
(U) <u>Performing Organizations:</u>											
<u>Contractor or</u>	<u>Contract</u>										
<u>Government</u>	<u>Method/Type</u>	<u>Award or</u>	<u>Performing</u>	<u>Project</u>							
<u>Performing</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Activity</u>	<u>Office</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>	
<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>	<u>Program</u>	
<u>Product Development Organizations</u>											
TBD Contract					0	0	0	6,977	1,136,958	1,143,935	
<u>Support and Management Organizations</u>											
TBD					0	0	0	3,000	83,000	86,000	
<u>Test and Evaluation Organizations</u>											
					<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>	
<u>Subtotals</u>					<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>	<u>Program</u>	
Subtotal Product Development					0	0	0	6,977	1,136,958	1,143,935	
Subtotal Support and Management					0	0	0	3,000	83,000	86,000	
Subtotal Test and Evaluation											
Total Project					0	0	0	9,977	1,219,958	1,229,935	

Project A005

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